WHAT IS CLAIMED IS:

1. A data transmission system, comprising:

a transmitter which adds control data to transmission data, and modulates the resultant signal by a predetermined modulation method, and sends the result in a wireless manner;

a receiver which detects a reception power intensity by use of the control data contained in the transmitted signal;

wherein a random pattern is used for a reception-power detecting portion for detecting a reception power intensity, which is contained in the control data.

2. The data transmission system according claim 1, in which said reception-power detecting portion is located preceding to said transmission data, and in said receiver side, a reception power intensity of said reception-power detecting portion is detected, and the reception power intensity of the subsequent transmission data portion is adjusted.

3. The data transmission system according claim 1, in which said reception-power detecting portion is located preceding to said transmission data, and in said receiver side, an antenna selection diversity is realized which detects a reception power intensity of said reception-power detecting portion, and selects a receiving antenna for the subsequent transmission data portion.

4. The data transmission system according claim 1, in which said reception-power detecting portion is located preceding to said transmission data, and in said receiver side,

a reception power intensity is detected during said reception-power detecting portion, and a hand-over function is realized which selects a transmitter station.

5. The data transmission system according claim 1, in which said reception-power detecting portion is located preceding to said transmission data, and in said receiver side, a reception power intensity is detected during said reception-power detecting portion, and a hand-over function is realized which selects a transmitter station of the subsequent transmission data portion.

6. The data transmission system according claim 1, in which said random pattern is an M-sequence data pattern.

7. The data transmission system according claim 1, in which said random pattern contains an M-sequence data pattern of 7 bits or longer.

8. The data transmission system according claim 1, in which said random pattern is a random pattern of which one period is longer than a distance corresponding to the number of bits representative of the maximum delay quantity of a delayed wave that is prescribed in the channel model for the wireless communication system.

9. The data transmission system according claim 1, in which when said transmission data is transmitted, said control data of one burst is added every one or a plural number of transmission data.

10. A data transmitter in use with a data transmission system in which a transmitter side adds control data to transmission data, and modulates the resultant signal by a predetermined modulation method, and sends the result in a wireless manner, and a receiver side detects a reception power intensity by use of the control data contained in the transmitted signal, said data transmitter comprising:

random pattern-adding means for adding a random pattern to a reception-power detecting portion for detecting a reception power intensity, which is contained in the control data.

11. The data transmission system according claim 8, in which said random pattern added by said random pattern adding means is an M-sequence data pattern.

12. The data transmission system according claim 8, in which said random pattern added by said random pattern adding means contains an M-sequence data pattern of 7 bits or longer.

13. The data transmission system according claim 8, in which said random pattern added by said random pattern adding means is a random pattern of which one period is longer than a distance corresponding to the number of bits representative of the maximum delay quantity of a delayed wave that is prescribed in the channel model for the wireless communication system.

14. The data transmission system according claim 8, in which said random pattern adding means operates such that when said transmission data is transmitted, said control data of one burst is added every one or a plural number of transmission data.

15. A data receiver in use with a data transmission system in which a transmitter side adds control data to transmission data, and modulates the resultant signal by a predetermined modulation method, and sends the result in a wireless manner, and a receiver side detects a reception power intensity by use of the control data contained in the transmitted signal, said data receiver comprising:

a reception-power intensity adjusting means for detecting a reception power intensity in said reception-power detecting portion and adjusting a reception power intensity of the subsequent transmission data portion when a random pattern is added to a reception-power detecting portion for detecting a reception power intensity, which is contained in the control data, and said reception-power detecting portion is located preceding to said transmission data.

16. A data receiver in use with a data transmission system in which a transmitter side adds control data to transmission data, and modulates the resultant signal by a predetermined modulation method, and sends the result in a wireless manner, and a receiver side detects a reception power

intensity by use of the control data contained in the transmitted signal, said data receiver comprising:

antenna select diversity means for detecting a reception power intensity in said reception-power detecting portion and for selecting a receiving antenna, when a random pattern is added to a reception-power detecting portion for detecting a reception power intensity, which is contained in the control data, and said reception-power detecting portion is located preceding to said transmission data.

17. A data receiver in use with a data transmission system in which a transmitter side adds control data to transmission data, and modulates the resultant signal by a predetermined modulation method, and sends the result in a wireless manner, and a receiver side detects a reception power intensity by use of the control data contained in the transmitted signal, said data receiver comprising:

antenna select diversity means for detecting a reception power intensity in said reception-power detecting portion and for selecting a receiving antenna for the subsequent transmission data portion, when a random pattern is added to a reception-power detecting portion for detecting a reception power intensity, which is contained in the control data, and said reception-power detecting portion is located preceding to said transmission data.

18. A data receiver in use with a data transmission system in which a transmitter side adds control data to

transmission data, and modulates the resultant signal by a predetermined modulation method, and sends the result in a wireless manner, and a receiver side detects a reception power intensity by use of the control data contained in the transmitted signal, said data receiver comprising:

hand-over control means for detecting a reception power intensity in said reception-power detecting portion and for selecting a transmitter station for the subsequent transmission data portion, when a random pattern is added to a reception-power detecting portion for detecting a reception power intensity, which is contained in the control data, and said reception-power detecting portion is located preceding to said transmission data.